R E P O R T R E S U M E S

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OFF CAMERA--A PICTORIAL GLIMPSE OF AV-TV--THE WISCONSIN AUDIOVISUAL TELEVISION PROJECT.

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AN INSERVICE TRAINING COURSE IN AUDIOVISUAL METHODS ATTEMPTED TO (1) MEET THE NEEDS OF ELEMENTARY SCHOOL TEACHERS OF GRADES 2 THROUGH 8, (2) IMPROVE BOTH TEACHER ATTITUDES TOWARD AUDIOVISUAL TECHNIQUES AND TEACHER USE OF AUDIOVISUAL MATERIALS, AND (3) USE THE LATEST AND MOST EFFICIENT TEACHING PRACTICES IN PRESENTATIONS TO TEACHERS. TELEVISION WAS USED TO PRESENT THE LESSONS AND UTILIZE THE SKILLS OF THE TEACHING TEAM. WRITTEN LABORATORY ASSIGNMENTS WERE PREPARED BY PARTICIPATING STUDENTS TO REPORT THE USE MADE OF IDEAS LEARNED IN THE COURSE AND CHANGES WHICH OCCURRED IN THEIR CLASSROOMS IN PUPIL LEARNING OUTCOMES. THE ASSIGNMENTS PROVIDED FEEDBACK AND ESTABLISHED A CLOSE TUTORIAL RELATIONSHIP BETWEEN COURSE EVALUATORS AND THE ENROLLED TEACHERS. EVALUATION SCALES WERE USED. CONCLUSIONS INDICATED THAT THE AUDIOVISUAL TELEVISION COURSE REACHED MANY TEACHERS OF LONG TEACHING EXPERIENCE. MANY OF THESE LONG-SERVICE TEACHERS WERE UNABLE TO TAKE ACADEMIC WORK EXCEPT THROUGH THE TELEVISION MEDIUM. FINALLY, IT WAS DEMONSTRATED THAT NOT ONLY DID THE AUDIOVISUAL TELEVISION COURSE REACH THE AUDIENCE FOR WHICH IT WAS DESIGNED, BUT THAT A DEFINITE NEED FOR SUCH A COURSE WAS PRESENT. (HB)

A 015

OFF-CAMERA

A PICTORIAL GLIMPSE OF AV-TV

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
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THE WISCONSIN AUDIO-VISUAL TELEVISION PROJECT

OFF-CAMERA:
A PICTORIAL GLIMPSE OF AV-TV

AN INVESTIGATION AND EVALUATION OF MORE EFFICIENT WAYS OF TRAINING TEACHERS TO IMPROVE THEIR DAY-TO-DAY CLASSROOM LEARNING ACTIVITIES AND PROCEDURES THROUGH THE USES OF AUDIO-VISUAL MEDIA

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A project, such as is described in this report, is a cooperative venture. The meeting of many minds was involved during the planning stage. Accomplishment represents the continuing cooperative effort of people of high professional ability.

This acknowledgement expresses thanks to those who planned, those who guided, those who participated, as well as those who evaluated. This acknowledgement recognizes the important contribution made by the many graduate students who worked far beyond the limits of normal expectations in helping to bring plans to reality.

The basic planning of this project was undertaken by the Project Committee, which included: Professors Lee Campion, Richard Hubbard, Wesley C. Meierhenry, Vigo B. Rasmusen, Charles F. Schuller, Julian Stanley, Percy H. Tannenbaum, Charles A. Wedemeyer, Frederick A. White, the Dean of The University of Wisconsin School of Education, Lindley J. Stiles, and Professor John Guy Fowlkes, former Dean.

The actual work of producing the materials represented the cooperative efforts of Don Andresen, William G. Harley, Raymond Stanley, Robert M. Reed, Harold McCarty, and the many production staff members of the television laboratory, including: Dennis Cross, Eddley Furstenberg, John Glaeser, Jean Hodgin, Charles Huber, Jack Jennerjahn, Frank Kotter, Gaylord Krenz, Melvin Laskey, Peter Night, Ken Ohst, John Siegrist, and Hellen Winter.

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Acknowledgement is to be made to Robert Dick and Wally Wykoff for their assistance in the development of the coordinator's public relations materials.

Because such people as the above were willing to work together on a cooperative project, this television teaching project can be reported with the measure of success indicated in the following pages.

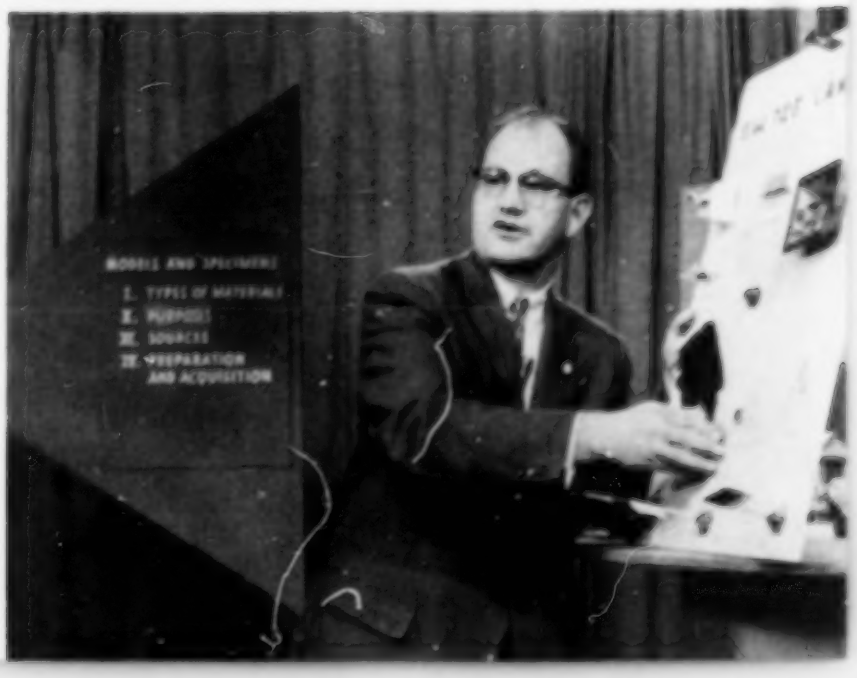
Frederick White Dons Make-up.

Pupils Take Part With Walter Wittich.

Lee Campion Demonstrates Audio.

Miniature Volcano Is
Created by Vigo Rasmuse

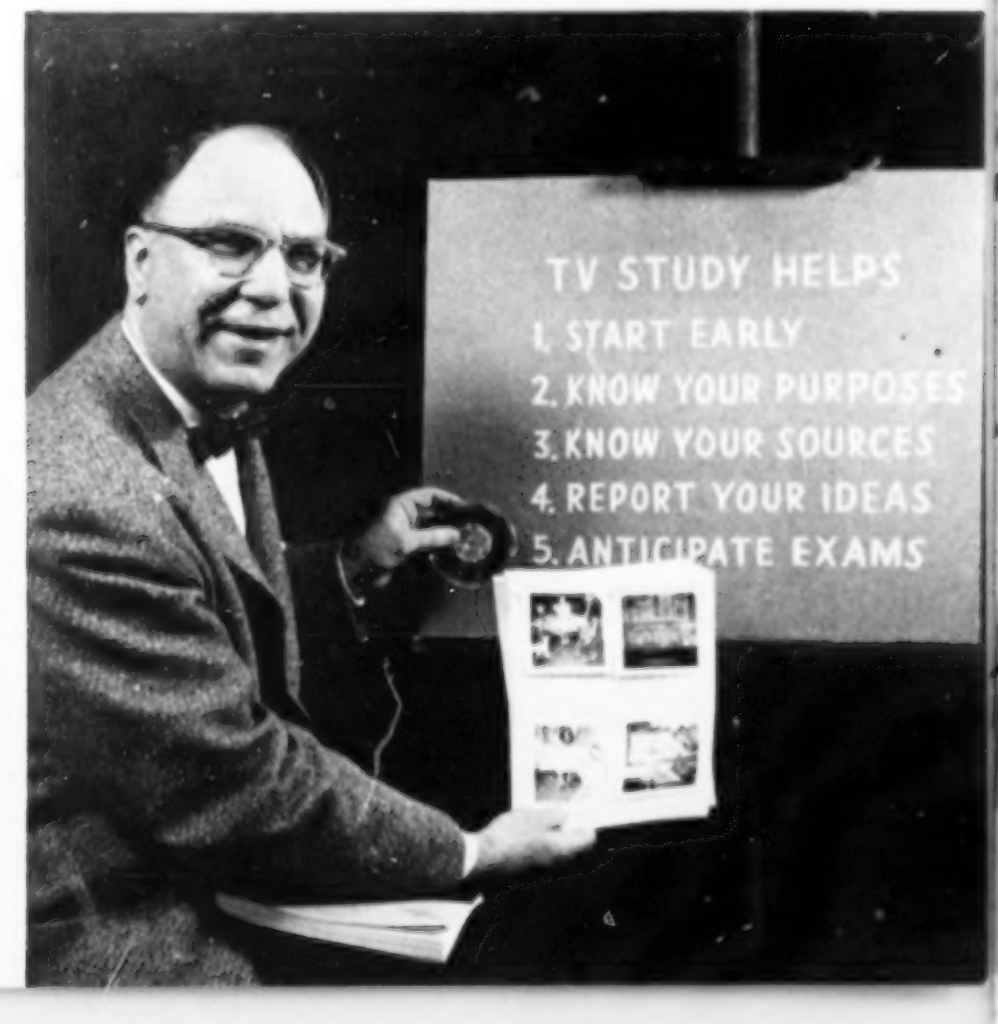
Wesley Meierhenry
Shows Study Display.



Charles Schuller (L)
Tours World of Maps.

Richard Hubbard Discusses
Materials for Duplicating.

Study Hints Given by Charles Wedemeyer.



SPACE
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CONTENTS

Page

INTRODUCTION 1

The Planning Stage
Precedents
Preparations
The Study Guide
The Television Lessons
Participating Institutions and the Teacher Audience
Project Evaluation Results
Results of Evaluation
The Next Step
Where to Obtain More Information

PROBLEM ONE:
To determine if the Audio-Visual Television Course caused changes in the way enrolled teachers used audio-visual materials and methods in their classrooms 9

PROBLEM TWO:
To determine if the Audio-Visual Television Course changed the enrolled teachers' attitudes toward audio-visual methods and materials . . . 13

PROBLEM THREE
To determine the final estimate of the enrolled teachers as to the value of the Audio-Visual Television Course 17

PROBLEM FOUR:
To determine if the Audio-Visual Television Course reached the practicing, in-service teachers for which it was designed 21

BIBLIOGRAPHY 23

APPENDICES 24

FIGURE 1

PROGRESS OF AV/TV PROJECT RESEARCH PHASE

1959	SPRING SEMESTER	Planning Meeting at Madison Teaching-Team Formed Trial Kinescopes Prepared
	SUMMER	Trial TV Lesson Kinescopes Evaluated Course Content, Materials, and Evaluation Scales Planned
	FALL SEMESTER	Study Guide, Teacher's Manual, Evaluation Instruments Prepared 42 Television Lessons Filmed
1960	SPRING SEMESTER January	Broadcasting Begins Scales A, B, and C Administered
	May	Broadcasting Ends Final Examinations Given Scales A, B, C, and E Administered
	SUMMER	Research Phase Evaluation Begins

INTRODUCTION

The current national concern over the improvement of American education is reflected in nearly every facet of our public life, from the halls of Congress to the local Parent-Teachers' Association meeting. Few would argue that our schools need no improvement. However, the energies of enlightened educators are more and more being turned from debate to research.

The important role of audio-visual materials in enriching and improving classroom instruction has been proven through thirty-five years of educational research. This points to the need for acquainting all teachers with the latest audio-visual techniques and practices. However, this cannot be done entirely upon the campuses of teacher-training institutions. Current statistics reveal that each year only about 135,000 newly trained teachers are certified to fill the 140,000 positions open. Of these new teachers, less than 110,000 reported for work in 1960. Not all of these were fully trained in audio-visual techniques.

Thus, the mainstay of the national school system remains the practicing teacher whose training took place five, ten, or twenty-five years ago when audio-visual techniques were not as developed as now or were almost nonexistent.

The researchers who took part in the project reported herein were aware of the great need for extending training in audio-visual teaching techniques to the practicing teacher.

The Planning Stage

The researchers set themselves the task of devising an in-service training course in audio-visual methods suited to the elementary teacher. The target of the course would be teachers of grades two through eight. The goal of the course would be to improve the teachers' use of audio-visual materials and impart to them a favorable attitude toward audio-visual techniques.

The planners also outlined a corollary task. This second task was to use the latest and most efficient teaching practices in presenting the course to the teachers. Three practices in particular were viewed favorably: team teaching, television lessons, and written laboratory assignments.

The teaching-team approach to the improvement of classroom learning has yielded hopeful results when applied to experiments in elementary and secondary schools. It was thought possible that a similar approach, using a team of professional audio-visual educators to prepare, present, and administer the course could improve the quality of instruction in audio-visual training.

The very content of the course made it appropriate to utilize the audio-visual medium of television to present the lessons. In addition, this was obviously the most practical way to use the skills of the teaching team.

Finally, written laboratory assignments were to be prepared by participating "students," the in-service teachers, to report the use made of ideas learned in the course and changes which occurred in their classrooms in pupil learning outcomes. Such assignments would provide "feedback" and establish a close tutorial relationship between course evaluators and the enrolled teachers. Thus, the benefits of traditional instructional methods, the time-tested techniques of correspondence, were used to round out the combination of newer methods.

In the spring of 1959, a group of men long experienced in the teaching and administration of audio-visual techniques and materials met at The University of Wisconsin to discuss the feasibility of a televised audio-visual course. At the meeting were Lee Campion, then Director of Audio-Visual Education, St. Louis County Schools, and now Associate Investigator, Technological Development Project, National Education Association; Richard Hubbard, then Assistant Director of the Bureau of Audio-Visual Instruction, The University of Wisconsin, and now Assistant Professor of Education and Supervisor of the Telemation Laboratory, The University of Wisconsin; Wesley Meierhenry, Assistant Dean, Teachers College and Professor of Audio-Visual Education, University of Nebraska; V. B. Rasmusen, Associate Professor of Education and Director of the Audio-Visual Center, La Crosse State College, La Crosse, Wisconsin; Charles F. Schuller, Professor of Education and Director of the Audio-Visual Center, Michigan State University; Frederick A.White, Director of the Bureau of Audio-Visual Instruction, The University of Wisconsin; and Walter A. Wittich, Professor of Audio-Visual Education, The University of Wisconsin, and director of the project.

In addition, two consultants served with the committee: Charles A. Wedemeyer, Director of Correspondence Study, The University of Wisconsin Extension Division; and Percy H. Tannenbaum, formerly associated with the Institute of Communications Research, University of Illinois, and currently Director of the Communications Center, The University of Wisconsin.

Precedents

The committee was guided in its thinking by two previous efforts in this area. In 1955, Meierhenry at the University of Nebraska prepared an audio-visual course for television. Meierhenry incorporated twenty-eight television lectures, a study guide, sixteen written assignments, student self-evaluation checklists, and a text into a unified learning experience. However, his course primarily was nonexperimental because the size of the population was so small. (2)

In 1957, Torkelson conducted a limited study somewhat similar to the one reported herein. However, its primary aim was to discover student and instructor reactions to closed-circuit teaching of certain portions of an on-campus audio-visual course. Results indicated that many problems were encountered concerning student reactions to content and instructor personalities, as well as problems about the efficient definition of the role of closed-circuit television in on-campus instruction. (5)

Preparations

As an outgrowth of the 1959 spring meeting, the teaching-team researcher group was formed and experimental work begun. As a beginning step, each of the team members planned and produced a half-hour television lesson on an audio-visual subject of his choice. These kinescoped (filmed) recordings were used as an evaluation device in developing a more refined AV/TV course.

The team spent much of the summer of 1959 in outlining forty-two television lessons and deciding which team members should teach which lessons--alone, in pairs, or in larger groups. Also during the summer the members planned the contents of the AV/TV Study Guide, including the self-evaluation checklists, the written laboratory assignments, and the required and suggested reading and activities. Course examinations and evaluation scales to be used in judging the effectiveness of the project were also developed at this time.

THE TEACHING TEAM - Charles A. Wedemeyer (left), Frederick A. White, Richard Hubbard, Lee Campion, Wesley Meierhenry, Vigo B. Rasmusen, Charles Schuller, and Walter A. Wittich (right).

The Study Guide

Project staff members, under the leadership of Charles Wedemeyer, developed

a television "correspondence-type" study guide for use by the enrolled teachers.

The Study Guide helped the enrollees in several ways. It presented material to supplement and enrich the content of the television lessons and text. It gave required readings in the text, Audio-Visual Materials. (6) It also suggested supplementary readings. In addition, it allowed the enrolled teacher to evaluate her own knowledge and performance through checklists.

One of the most important techniques incorporated into the course through the Study Guide were practical laboratory experiences in the classroom and in operation of audio-visual equipment.

For example, in the case of the 16 mm. film projector, a series of postcards was inserted in the Study Guide. The enrollee removed these cards, submitted them to the manufacturers of 16 mm. equipment, and in turn received diagrams, instruction booklets, and phantom photographs. By submitting an additional postcard, the enrollee received a reel of practice film. The Guide suggested local sources of 16 mm. projectors.

PRODUCER AND RESEARCH STAFF - Director Robert Reed (standing left) of WHA-TV talks with graduate students Judith Ambrose (left), Jay Brill, Elsie Calero De Martinez, Frederick Mundt, and John Rawnsley (right). These students have since accepted positions in the audio-visual field.

In all the corresponding television lessons, the instructor used models,

animated sequences, and diagrammatic explanations to show the threading and operation of any one of the more common sound projectors. References in the text also were assigned.

Thus, all these experiences were synthesized and used in actually accomplishing the skills involved in 16 mm. projector operation. Success was reported by all of the enrolled teachers. Similar procedures were pursued in the tape recorder, filmstrip projector, etc.

The outcomes of the enrollee's classroom laboratory experiences were reported in ten written laboratory reports. Each report was a means of encouraging the teacher to try out and develop audio-visual teaching innovations. The classroom became the experimental setting in which the teacher carried out audio-visual planning and experimenting.

There were several advantages in providing such a setting for the teacher's course work. First of all, the classroom was a "live" concrete situation as opposed to passive learning in a college lecture hall. Second, the laboratory work became identified closely with the daily persisting tasks in the classroom. Third, the teacher enrolled had time to plan her laboratory work, since the planning became part of her regular instruction planning.

The written laboratory reports were sent to centrally located area audio-visual specialists for evaluation. These specialists judged the reports, wrote numerous comments and criticisms on them, and returned them to the enrollees.

Grades in the AV/TV Course were assigned on the basis of these ten written laboratory reports, plus a mid-term and final examination. The grades were assigned by the area specialists, who were guided by weighting criteria developed by the project team.

The Television Lessons

During the fall semester of 1959-1960, the members of the team met on scheduled days at the WHA-TV studio of the State Station on The University of Wisconsin campus. On these days, they planned, rehearsed, and completed forty-two lessons in all. Immediate evaluation of each lesson resulted in several re-takes. More re-takes were planned, but lack of time before the scheduled broadcasts beginning in January, 1960, prevented these additional re-takes. None of the team members was ever quite satisfied with what had been done, but all expressed the thought that team teaching had brought out the full potentialities of each instructor.

As Mr. Campion said, "The diversity of ideas and materials which a team of instructors can arrange is much beyond that which could be achieved by a single instructor."

The production of the lessons was supervised by Robert M. Reed, professor of

television production at The University of Wisconsin Television Laboratory.

During the fall, members of the teaching team taught solo, in pairs, and, in some cases, in larger groups. The forty-two half-hour lessons covered these topics:

1. The meaning of audio-visual education
2. Chalkboard, flat pictures, graphics, duplication, feltboard, and study displays
3. Sound films
4. Maps and globes
5. Community study
6. Models and specimens
7. Still projection
8. Audio
9. Radio, television, and the cross-media approach
10. Administration and evaluation

Under the direction of Mr. Reed, a quality lesson resulted which was far superior to the typical teaching procedures of an audio-visual instructor. This last evaluation was made primarily by the teaching team members as they sought to evaluate their own ten years of teaching experience as compared to their performances as members of the teaching team. "In team teaching, there is a certain inspiration which the members receive from one another," Professor Rasmusen said. "A sort of competitive spirit develops which is all to the instructor's benefit."

Participating institutions and the teacher audience broadcasting began in January, 1960. The greatest possible cooperation was extended by the ETV, NBC, and CBS television stations which took part in the project. Some NBC and CBS stations made cost-free public service time available. Three stations "signed on" ahead of their daily schedule so that the lessons could be broadcast before school time.

Teacher training institutions in seven television viewing areas took part in the project. A list of participating institutions, personnel, and television outlets will be found in Appendix A. The program was on the air during the spring semester

of 1960. The lessons were broadcast over stations in six Midwest areas and Florida.

A total of 766 persons enrolled for graduate or undergraduate credit, and an estimated 1,810 noncredit viewers saw at least portions of the course. [1] No firm figure can be give for this latter category.

Project Evaluation Instruments

A staff of graduate students was selected, hired, and assigned tasks by the project director. Professor Tannenbaum served as consultant during the time that five scales were developed to measure the effect of the course as a whole. These scales were administered on a strictly noncredit basis to participating teachers before, during, and following the time the series was being broadcast.

In the final evaluation, four of the five scales were used. One of the scales, Scale D, a free-response valuation by the teacher of her teaching methods, was not used in the final evaluation because it did not yield the specific information expected.

A full description of the scales, evaluation analysis, and results is given in this report. In addition, copies of the scales are included in Appendix B of the Library of Congress copies of this report.

The scales were used to determine (1) the effect of the course on actual day-to-day classroom practices, (2) shifts in teacher attitudes toward audio-visual materials and techniques, (3) teacher opinion of the course, and (4) whether the course was reaching the in-service teacher for which it was designed.

Results of Evaluation

Generally stated, the evaluation analysis showed:

1. Constructive changes in audio-visual techniques were incorporated immediately in day-to-day classroom teaching.

2. The course caused participating teachers to take a more favorable attitude toward the use of audio-visual media.

3. The course ranked more favorably than the typical professional education course in the opinion of the teachers.

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1 There was approximately an 18 per cent drop-out during the course. This compares very favorably to the much higher drop-out average established in typical correspondence work.

4. Improvements could be made in the course. Some television lessons were criticized, and adverse comments were made about some of the materials in the Study Guide and laboratory assignments.

5. The course reached the practicing experienced teacher for whom it was primarily designed.

The generally favorable results showed that the course is a superior in-service training course. The results of the first experimental year became the basis for further demonstration work.

The Next Step

The end of the research year 1959-1960 found the teaching team preparing for a "Demonstration Year" during 1960-1961 in which the flexibility and practicality of the course under a variety of local conditions was to be demonstrated. The team and Dr. Wedemeyer unanimously agreed to redo and further improve the AV/TV Course in the light of the research findings.

On the basis of suggestions made by teachers, eighteen television lessons were revised, fifteen of them entirely. Changes were made in the Study Guide and teacher's manual. The administrative procedures were revised to allow more local participation and flexibility of use. A progress report on the "Demonstration Year" is available from the address below. The final report will be bound together later with copies of the Research Year Report.

Where to Obtain More Information

Those wishing to obtain copies of the Study Guide or the evaluation materials or any other additional information may contact the Office of the Dean of the School of Education, Attention W. A. Wittich, Professor of Audio-Visual Education, at The University of Wisconsin, Madison.

PROBLEM ONE: To determine if the Audio-Visual Television Course caused changes in the way enrolled teachers used audio-visual materials and methods in their classrooms.

QUESTION: How were shifts in teacher practice measured?

ANSWER: Shifts in teacher practice were measured by the use of two scales, Scale A and Scale C, the Teaching Practices Scale and the Audio-Visual Practices Scale. (1) Copies of both Scale A and C will be found in Appendix B of the Library of Congress copies of this report.

Pre Scale A was first filled out by the enrolled teachers during registration time. Each enrollee was asked to choose a unit of study which he had taught during April and May of the preceding school year (1959) and which he planned to teach again during the semester in which he took the AV/TV Course.

The enrollee described the unit, the grade level at which it was taught, and the anticipated learning results. The description could be based on memory, lesson notes, resource unit records, or a combination of these.

The enrollee was asked to enumerate the teaching aids which he had used during the unit. He was asked to outline the manner in which each aid was used and to judge the percentage by which each aid contributed to the total success of the unit.

In the Post Scale A, administered at the end of the course, the enrollee was asked to give the same information for the "repeat" unit he had taught during the time he was taking the AV/TV Course.

For scoring purposes, ten specific criteria were developed from test scales filled out by four expert teachers—an audio-visual director and three specialists, one each in elementary science, social studies, and language arts.

In scoring, one point was given to the enrollee for each criterion which was fulfilled, as evidenced by the information on the scale relating to each audio-visual technique. This yielded a score ranging from 0 to 10, which in turn was multiplied by the number of teaching aids listed by the subject.

Scale C also was administered at the beginning and end of the AV/TV Course.

The enrollee and a supervisory person nominated by the enrollee cooperated in filling out Scale C. The supervisory person was an educational official, usually a supervisor, who had had an opportunity to observe the classroom work of the teacher.

Scale C was made up of three main sections. The enrollee and teacher first were asked to respond to a list of twenty desirable audio-visual practices. For each item, they marked a five-point scale indicating how frequently the stated practice was followed in the classroom. The scale ranged from "Almost Always" to "Almost Never."

The enrollee and observer were then requested to indicate how often the enrollee used the various audio-visual aids now available. This was done by means of a five-point scale ranging from "Very Frequently" to "Never."

The third section was composed of three open-ended items in which the observer was asked to comment on the atmosphere of the classroom, pupil participation in audio-visual experiences, and any other information he deemed pertinent.

Scale C was scored by assigning a numerical value ranging from five points to one to the responses on the five-point scales in the first and second sections. It was decided to not use the third section because the responses did not yield sufficient specific information.

QUESTION: How was the data analysis carried out?

ANSWER: The research staff faced many serious difficulties in distributing and collecting scales over such a wide geographical area (the Midwest and Florida). Despite obstacles, an adequate sampling was obtained.

The groups enrolled at the participating institutions varied greatly in numbers. To simplify analysis, they were divided into two main populations: (1) the Midwest group, made up of teachers in Michigan, Illinois, Nebraska, Missouri, and Wisconsin; and (2) the Florida group.

An appraisal of the type and numbers of cases suggested two statistical treatments: a sign test (Dixon-Mood) to be used with Scale A, Midwest group data; and a t-test for use with Scale A, Florida group data.

The pre and post scores of subjects on the Midwest Scale A revealed no evidence of significant changes. To use a highly sophisticated treatment to ascertain a degree of significance with such data would be a waste of time. A simple test like the Dixon-Mood was chosen as an alternative, one which is entirely satisfactory with these kinds of data.

The t-test was used for Midwest group Scale C data. Due to admin-

istrative difficulties, the Florida group did not receive Scale C until it was too late to fill out the forms before the AV/TV Course actually began. For this reason, the Florida Pre Scale C forms were discarded as invalid. However, 40 Post Scales from subjects who had not filled out the Pre Scale were scored and the means computed.

QUESTION: What shifts in teaching practices were revealed by the pre and post forms of Scale A, Teaching Practices Scale?

ANSWER 1: Out of 235 teachers enrolled in Florida, 97 usable A Scales were returned and matched.

A mean score difference of 6.54 was favorable to the Post Scale. A t-test of significance found that this difference was significant at the 10 per cent level. (See Figure 2.)

ANSWER 2: From 581 teachers enrolled in the Midwest, 71 matching pairs were obtained. For each subject-pair, a change score was calculated by subtracting the pre score from the post score.

The 71 subjects showed a positive change totalling 101 points. This resulted in a mean positive shift of 1.422 points. A sign test (Dixon-Mood) showed that this shift was not significant in any one direction.

QUESTION: What shifts in teaching practices were shown by the pre and post forms of Scale C, Audio-Visual Practices Scale?

ANSWER 1: From the Midwest group, 93 Pre Scales and 92 Post Scales were usable. The mean score on the Pre Scales was 116.053 and for the Post Scales 136.097.

A mean difference of 20.044 was favorable to the Post Scales. A t-test of significance found this difference significant at the .001 level, well above the 1 per cent level. (See Figure 3.)

ANSWER 2: The Pre C Scales from the Florida group of 235 persons enrolled for credit were not filled out before the course began and therefore were discarded as invalid. However, 40 Post C Scales submitted by subjects who has not filled out Pre C Scales were analyzed and yielded a Post Scale C mean score of 126.92.

This 126.92 mean score is of value only in determining the post-course level of this small sampling of the Florida group as lying about midway between the pre and post mean scores of the Midwest group on Scale C. (See Figure 3.)

Conclusions

The Midwest group showed a significant increase (.01 level) in their

classroom use of audio-visual methods on Scale C, Audio-Visual Practices Scale. Although not highly significant statistically, Scale A, Teaching Practices Scale, showed that there was a raw score improvement which reflected the way that Midwest and Florida enrollees used audio-visual media to facilitate classroom instruction. On the basis of present results, we can infer that the Audio-Visual Television Course exerted a positive effect upon classroom audio-visual utilization of enrolled teachers.

FIGURE 2

MEAN PRE AND POST SCORES OF 97 FLORIDA ENROLLEES ON SCALE A, TEACHING PRACTICES SCALE

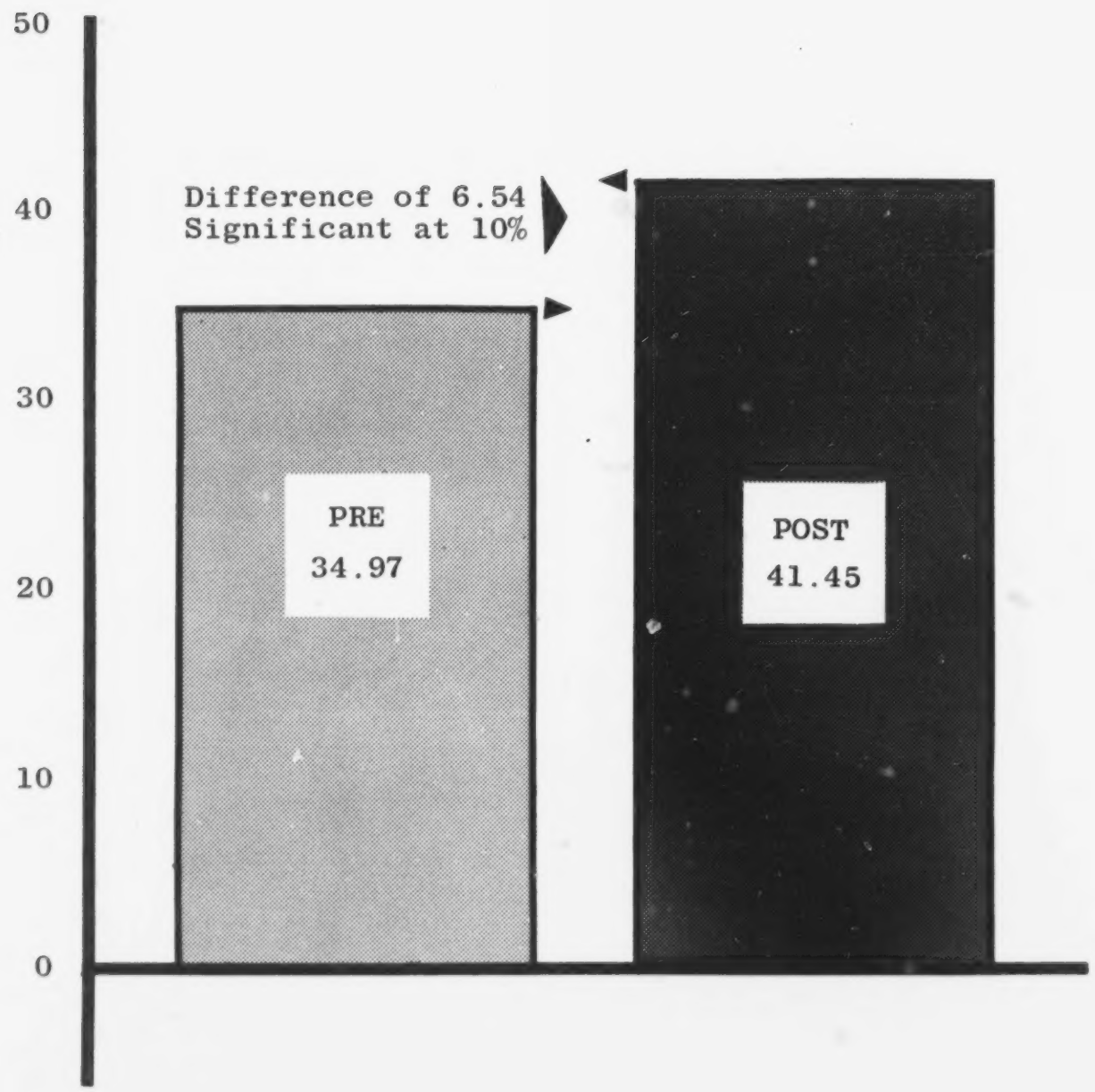
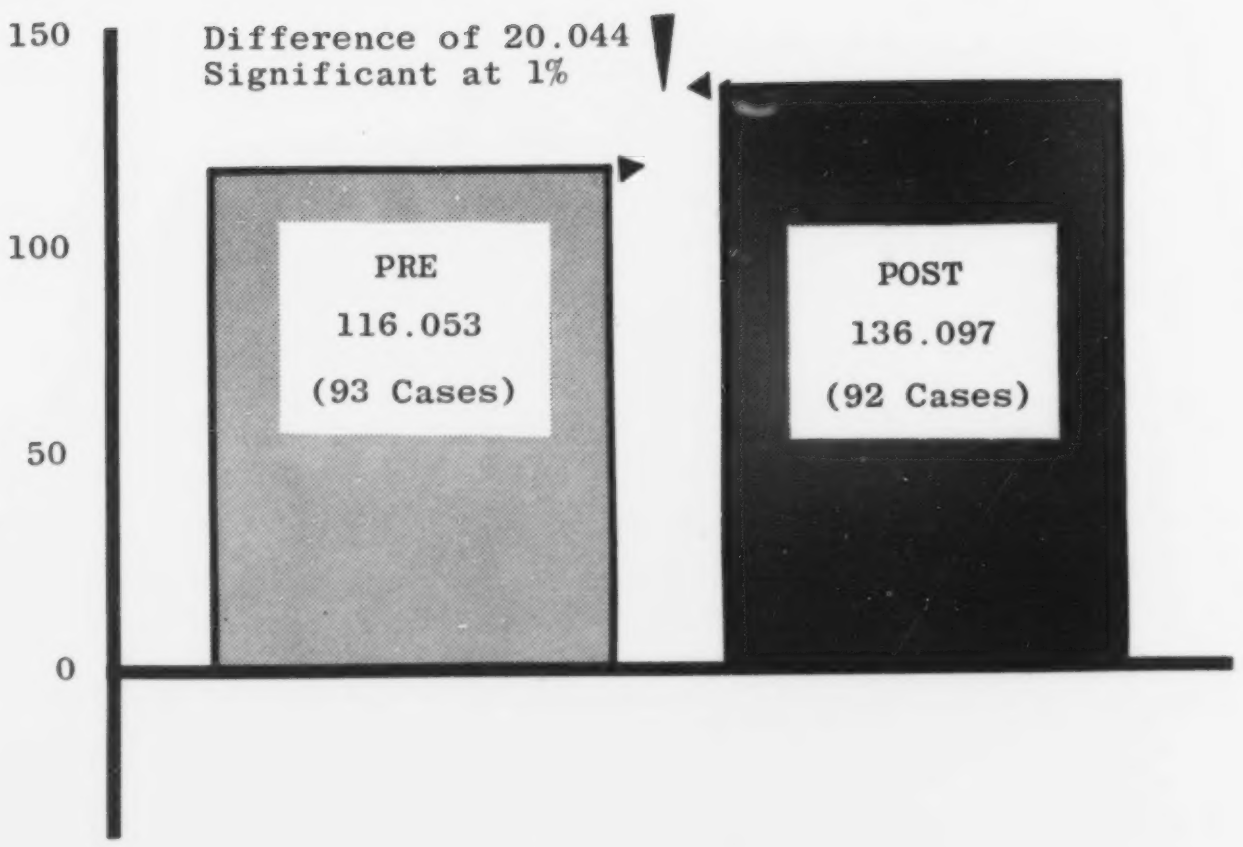


FIGURE 3

MEAN PRE AND POST SCORES OF MIDWEST ENROLLEES

ON SCALE C, AUDIO-VISUAL PRACTICES SCALE



PROBLEM TWO: To determine if the Audio-Visual Television Course changed the enrolled teachers' attitude toward audio-visual methods and materials.

QUESTION: How were changes in teacher attitudes measured?
ANSWER: The "semantic differential" technique was used to determine changes. Scale B, Teaching Methods Opinionnaire, a form incorporating this yardstick, was administered to the teachers during registration and again toward the end of the course. (4) A copy of this scale will be found in Appendix B of the Library of Congress copies of this report.

The semantic differential technique was first developed by Osgood, Suci, and Tannenbaum at the University of Illinois. (3)

In ordinary speech, one talks about the "meaning" of a concept. The semantic differential theory breaks down this "meaning" into component factors.

The central factor in "meaning" is "evaluation," or attitude; that is, is the idea good or bad? This is the major factor measured by the technique. However, the testing device also measures more subtle aspects of meaning--connotations such as strength or weakness, newness or oldness, etc.

The technique requires that the person being tested respond to pairs of adjectives of opposite meaning, such as "good" and "bad," listed under the concept being considered.

In Scale B, 11 audio-visual concepts were presented: Audio-Visual Education; Audio-Visual Television Course; 16mm. Sound Film Instruction; Models and Specimens; Chalkboard; Television Instruction; Community Study; Textbooks; Regular Classroom Instruction; Tape Recorder; and Radio Instruction.

Under each concept, 15 polar adjective pairs were listed. The pairs were the same for all concepts.

Four of the pairs measured "evaluation," or attitude. Other pairs measured such meaning factors as potency, receptivity, etc.

Each polar pair had seven spaces between the adjectives. The subject could respond in a highly favorable fashion by marking the space next to the favorable adjective.

If the subject was neutral, he could place his mark in the space midway between the two adjectives. He also could do this if he felt the polar adjective pair did not apply.

The most favorable response was scored at seven, the next most

favorable at six, and so on down to one for the most unfavorable response. Since the most favorable response to each pair would be scored seven, the most favorable response to all four pairs measuring attitude would be 28 points. Four points would be the least favorable.

In the charts accompanying this report, the mean response to each concept was divided by four in order to facilitate graphing. Thus, the most favorable response to a concept would be graphed at seven. A neutral mean response would be four, etc. (See Figures 4 and 5.)

The two purposes for using the semantic differential technique were: (1) to measure shifts in teacher attitude as a way of evaluating the project; and (2) to provide data for further research into the more subtle factors of meaning involved in audio-visual concepts. Therefore, this report will deal only with those results which show changes in teacher attitude.

QUESTION: What was the attitude of the teachers to the 11 audio-visual concepts before they started the course?

ANSWER: Scores were compiled for the 426 teachers who completed and returned the Pre B Scales.

The mean score for each audio-visual concept was above neutrality. The group as a whole, therefore, had a positive attitude toward every concept, ranging from weak approval to strong approval. The pre responses of most of the teachers are graphed in Figures 4 and 5, excluding two small subgroups, as explained shortly.

This high level of acceptance of things and ideas having to do with audio-visual places a severe burden on the actual course content and instruction, since a reaction is usually inevitable when the realities of course tasks, reading, written assignments, etc. are encountered by enrollees.

QUESTION: Were the initial attitudes of the teachers affected by where they lived, how long they had taught, or by their educational background?

ANSWER: For analysis, the 426 teachers who returned Pre Scales were divided into two main regional populations: the Florida group, with 216 enrollees; and the Midwest group, with 210 enrollees. The Midwest population was further subdivided by treating two small groups as distinct. These were 35 private college students and 40 La Crosse, Wisconsin, teacher trainees who were obliged to take their regular audio-visual course through this means.

Each of these four groups was divided into three levels of course enrollment--graduate, undergraduate, and noncredit and two levels of teacher experience--those having under five years and those having over five years.

A nonstatistical examination found no marked differences between subgroups as far as initial attitudes were concerned. Some slight variations were found in populations of small size, where such variations could be expected due to the smallness of the samples. Slightly greater divergences from the two larger regional groupings were discovered for the private college and La Crosse subgroups.

The analysis strongly indicates that the independent variables mentioned did not affect initial teacher attitudes to any important degree. However, due to the small divergences revealed for the private college and La Crosse subgroups, these two samples were not included in the later post analysis of the Midwest population.

QUESTION: What changes took place in teacher attitudes toward audio-visual concepts as a result of the Audio-Visual Television Course?

ANSWER 1: A total of 130 enrollees in the Midwest group completed the Post B Scale. These were matched pairs with Pre Scales completed earlier by the same individuals. Each pair represented the before-and-after responses of one enrollee.

A random sample of 100 pairs was chosen for a two-tailed test of significance on the shifts between pre and post means for the audio-visual concepts.

Two positive shifts were found significant at the 5 per cent level: 16 mm. Sound Film Instruction and Regular Classroom Instruction.

Positive, nonsignificant shifts took place in the areas of Models and Specimens, Community Study, Textbooks, and Radio Instruction.

No change occurred in the Classroom Tape Recorder.

Negative, nonsignificant shifts took place in the areas of Audio-Visual Education, the Audio-Visual Television Course, Chalkboard, and Television Instruction. (See Figure 4.)

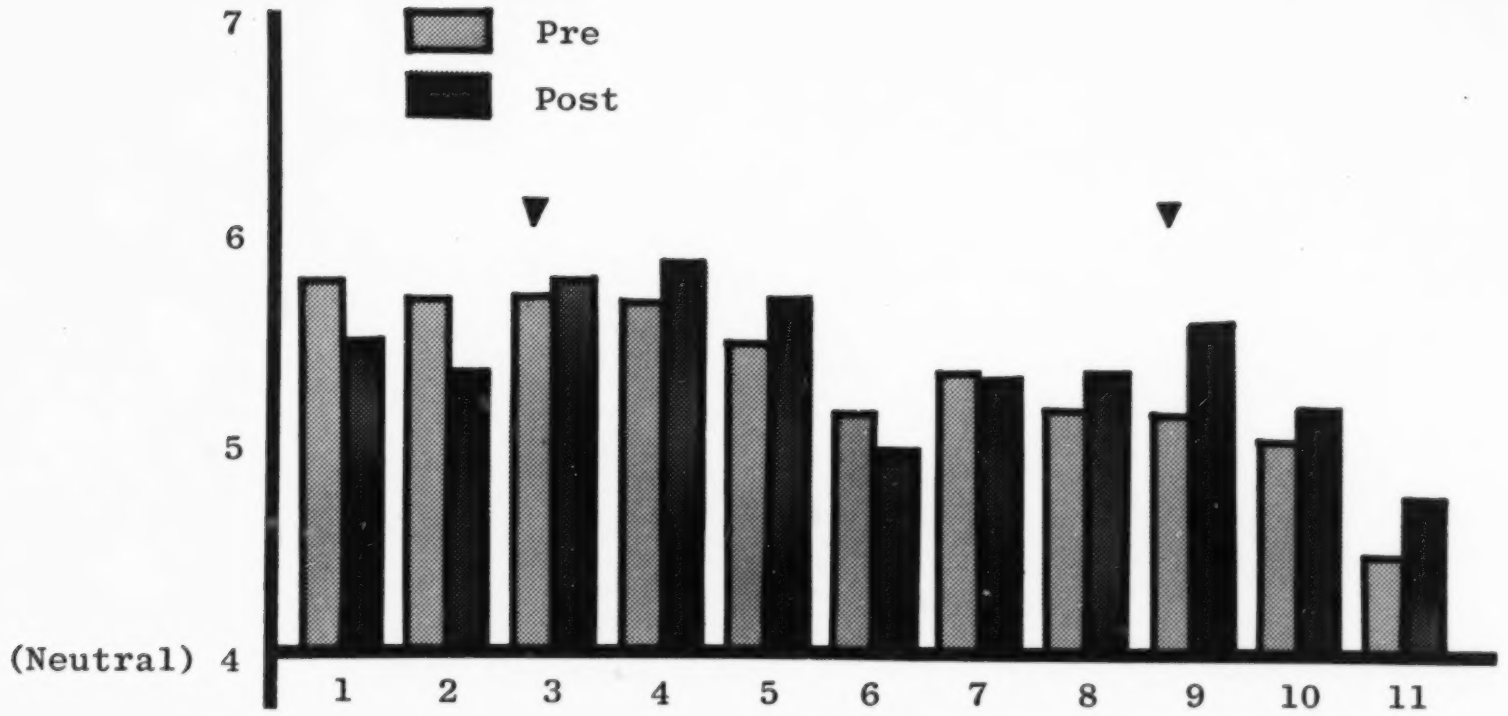
ANSWER 2: The Post B Scale was completed by 154 Florida enrollees. The pre and post means of 100 pairs of scales randomly selected were tested for significance under the same procedure taken for the Midwest group.

A positive shift significant at the 1 per cent level was revealed for the concepts of 16 mm. Sound Film Instruction and Community Study. Positive shifts significant at the 5 per cent level took place on Audio-Visual Education and Classroom Tape Recorder.

Positive shifts not significant occurred on Audio-Visual Television Course, Models and Specimens, Chalkboard, Regular Classroom Instruc-

FIGURE 4

MEAN PRE AND POST SCORES OF 100 MIDWEST ENROLLEES ON SCALE B, TEACHING METHODS OPINIONNAIRE

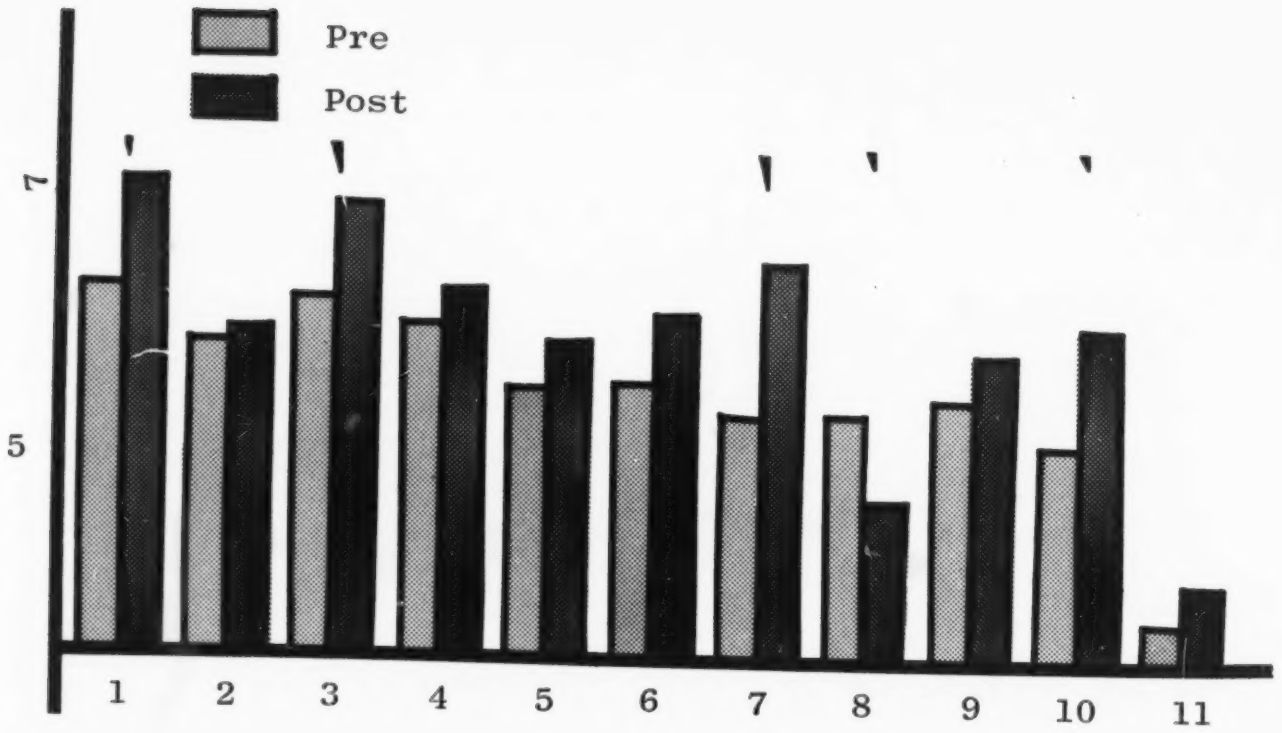


▲ Significant at 5%

NUMBER	CONCEPT	PRE SCORE	POST SCORE	SIGNIFICANCE
1	AV Education	5.76	5.47	
2	AV/TV Course	5.65	5.31	
3	Film Instruction	5.68	5.76	.05
4	Models and Specimens	5.66	5.84	
5	Chalkboard	5.46	5.68	
6	TV Instruction	5.12	4.95	
7	Community Study	5.31	5.30	
8	Textbooks	5.13	5.31	
9	Regular Class Instruction	5.12	5.57	.05
10	Tape Recorder	5.00	5.15	
11	Radio Instruction	4.45	4.72	

FIGURE 5

MEAN PRE AND POST SCORES OF 100 FLORIDA ENROLLEES ON SCALE B, TEACHING METHODS OPINIONNAIRE



Significant at 1%

Significant at 5%

NUMBER	CONCEPT	PRE SCORE	POST SCORE	SIGNIFICANCE
1	AV Education	5.76	6.26	.05
2	AV/TV Course	5.50	5.57	
3	Film Instruction	5.70	6.15	.01
4	Models and Specimens	5.58	5.74	
5	Chalkboard	5.28	5.50	
6	TV Instruction	5.30	5.62	
7	Community Study	5.15	5.88	.01
8	Textbooks	5.15	4.76	.05
9	Regular Class Instruction	5.23	5.45	
10	Tape Recorder	5.02	5.59	.05
11	Radio Instruction	4.20	4.39	

tion, Radio Instruction, and Television Instruction.

One negative shift, significant at 5 per cent, took place on Textbooks. (See Figure 5.)

Conclusions

Pre Scale B, Teaching Methods Opinionnaire, revealed that both Florida and Midwest groups initially held a favorable attitude toward all audio-visual concepts listed. This placed a heavy burden upon the course, since a negative reaction often takes place when the enrollee encounters the actual tasks of a course.

However, Post Scale B showed significant improvements in teacher attitudes toward a number of audio-visual concepts.

The lesser number of significant shifts on the part of the Midwest group may be a result of the fact that this group was less homogeneous and was exposed to a greater diversity of influences due to a larger number of television stations and course coordinators involved. This seems borne out by the similarity of attitudes held by both groups on the 11 audio-visual concepts on the pre test. Therefore, disparities between the post results of the two groups most likely can be explained by differences in broadcasting and regional administration.

The results of the testing strongly indicate that the Audio-Visual Television Course is an effective means of influencing teacher attitudes over a wide geographical area despite differences in age, experience, and educational status.

PROBLEM THREE: To determine the final estimate of the enrolled teachers as to the value of the Audio-Visual Television Course.

QUESTION: How were teacher attitudes toward the Audio-Visual Television Course revealed?

ANSWER: At the end of the course, a questionnaire was sent to enrolled teachers. The form, Scale E, AV/TV Evaluation Form, asked for teacher responses to 16 questions. (4) On most questions, the teacher could check from a structured list of responses and also make explanatory remarks. A copy of Scale E will be found in Appendix B of the Library of Congress copies of this report.

The teacher was told that because the scales could be mailed directly to the Wisconsin Office, Scale E reactions could in no way affect his grade.

QUESTION: What was the over-all attitude of enrolled teachers toward the Audio-Visual Television Course?

ANSWER: One hundred and thirty Midwest teachers and 147 Florida teachers returned questionnaires.

Both groups agreed that the Audio-Visual Television Course ranked above the typical professional education course. They said that the television lessons were a valuable aid to mastering the course material. Most felt that the Study Guide was very useful.

Both groups reported that they felt that the workload of the course was too great. [2] (See Figure 6.)

QUESTION: What parts of the course were reported as meeting the needs of the teacher?

ANSWER: Lesson areas most useful to the teachers were Sound Films, Chalkboard and Graphics, Models and Specimens, Still Projection, and Audio.

The requirement that teachers apply their knowledge in the laboratory of the classroom was useful. Most appreciated were those course elements which the teacher could apply immediately to the classroom.

The written laboratory reports helped the teacher to synthesize material gleaned from diverse sources. The reports also promoted two-way communications between the enrollee and the coordinator checking the assignments.

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[2] The 18% drop-out apparently was largely due to this factor.

FIGURE 6

OPINIONS EXPRESSED BY 277 MIDWEST AND FLORIDA TEACHERS ON SCALE E,

AV/TV EVALUATION FORM

THE PRACTICAL VALUE OF THE TELEVISION COURSE WAS:	Very High or High 222	Mediocre 46	Low or Very Low 6	No Answer 9
THE STUDY GUIDE WAS:	Very Useful or Useful 239	Mediocre 16	Poor or Very Poor 3	No Answer 19
THE VALUE OF THESE TELEVISION LESSONS AS LEARNING AIDS WAS:	Very Good or Good 238	Mediocre 29	Poor or Very Poor 3	No Answer 7
THE WORK LOAD INVOLVED IN COMPLETION WAS:	Too Much* 200	Reasonable 47	Too Little 1	No Answer 28
THE AV/TV COURSE, WHEN RANKED WITH THE TYPICAL PROFESSIONAL EDUCATION COURSE, WAS:	Much More or More Favorable 181	Equal 56	Less or Much Less Favorable 33	No Answer 7

*Does not include approximately 18% drop-out

The teachers also emphasized that they desire not only knowledge of good audio-visual practices but an opportunity to gain confidence in applying the knowledge and operating the necessary equipment.

In line with this, the teachers cited the television lessons as giving them increased confidence in handling audio-visual materials. In addition, they considered the television lessons to be the essential core of the course. They said that the television lessons presented new ideas in a series of coherent, well-organized, and well-prepared sessions. The television lessons helped them to pace themselves in the correspondence phase of the course.

The Study Guide provided a permanent reference source as well as being a necessary and valuable part of the course, they said. The self-evaluation checklists were especially useful in handling the central points in each lesson. In addition, the Guides structured the course, were clear, and complemented the television material. The threading diagrams, for example, helped the teachers to visualize the way to thread 16 mm. film projectors.

Almost unanimous approval was given to the local administration of the course. In particular, the teachers said, the local coordinators were always willing to counsel the enrollees, a valuable service.

The comment on the whole was favorable to the course. The teachers stressed their need for practical, how-to-do-it information as opposed to theory. The course seems to have supplied them with this practical information.

QUESTION: What parts of the course were criticized by the teachers?
ANSWER: The lesson areas cited as being of the least value to the teachers were Administration and Evaluation, Audio-Visual and Learning, and Radio and Television.

The most stressed criticism in these areas was that the topics were not particularly helpful in the day-to-day classroom instruction.

The teachers said that the Study Tasks demanded too much time for the credits earned or the value gained, especially for the practicing teacher already carrying a heavy load of work. The amount of work varied from assignment to assignment, and the exact amount was not always specified, they complained.

The Study Tasks were not equally suited for both upper and lower grade teachers. Neither were they equally easy for the in-service and pre-service teachers to carry out.

Questions raised within any one single assignment were too similar.

they said. Some of the assignments were ambiguous and vague.

Few specific criticisms were made of the television lessons, but the teachers felt that, in general, some of the lessons were either too quick-paced or too slow-paced. Charts were not always held on camera long enough for full understanding. The television lessons should not merely duplicate the Study Guide or text, they said. The occasional teacher reports over television did not add to the basic information presented by the course. Many teachers felt that they should not be required to preview films not directly pertinent to their teaching.

The Study Guide was critized mostly because of the work load expected. Teachers felt that ten written assignments, each including four to six specific tasks, was beyond what ordinarily is expected in professional education courses. There also were a few remarks that some sections were ambiguous and that in places it did not agree with the text.

The administration of the course was criticized only for demands made upon enrollees to obtain books and equipment for which no reference source was specifically set up.

The criticisms again reflect the teachers' desire for practical know-how rather than theory. This was connected to their demand that course work be fitted directly into the grade level and subject area which they taught.

Teachers became uneasy when they were not sure exactly what was required of them. A greater structuring seemed to be needed; that is, highly specific tasks assigned. In addition, the teachers complained about the amount of work which they felt was needed for a good grade.

Although the basic purpose and organization of the course were not greatly criticized, areas of needed improvement were pointed out.

QUESTION: What action has been taken to meet the teacher criticisms of the course?
ANSWER: Because of the encouraging results of the research reported herein, the project team continued to study ways to improve the course in preparation for a year devoted to demonstrating various methods of adapting the course to local conditions.

With an eye to teacher criticisms, eighteen of the television lessons were revised, fifteen of them in their entirety. The teacher's manual was largely rewritten. Administrative procedures were revised. The Study Guide was modified.

The results of the Demonstration Year, separately reported, show that the course was substantially improved by these changes.

Conclusions

The great majority of enrolled teachers rated the Audio-Visual Television Course as superior to the average professional education course. Their comments showed that the television lessons, written assignments, and classroom laboratory work each played an important and integral role in the presentation of the course.

The course met the teachers' needs for practical information that could be fitted easily into the day-to-day classroom instruction. Especially helpful in this were the television visualizations, the Study Guide aids, and the required classroom experimentation.

The laboratory reports were a valuable aid in establishing communications between enrollee and his audio-visual coordinator. The coordinators proved willing to counsel the enrollees at all times.

Almost no criticisms were leveled at the basic methods of the course itself, although specific recommendations were taken into account in revising the course for further broadcasting.

In sum, the Audio-Visual Television Course won the enthusiastic approval of both in-service and pre-service teachers.

PROBLEM FOUR: To determine if the Audio-Visual Television Course reached the practicing, in-service teachers for which it was designed.

QUESTION: How was the status of the enrolled teachers analyzed?

ANSWER: Since this problem was not originally within the scope of this report, time and limitations of personnel did not permit a full, rigorous statistical analysis of teacher age and experience.

However, a teaching experience breakdown was made for the 426 teachers returning the Pre Scale B used in Problem Two.

In addition, the project staff made inquiries of local coordinators about the typical teacher enrolled in the course.

From these two sources, a general picture of the experience and age of the typical enrolled teacher emerges.

QUESTION: What was revealed by Pre Scale B responses as to the teaching experience of course enrollees?

ANSWER: The 426 Florida and Midwest teachers enrolled who returned Pre Scale B responses were broken down into two groups--those having under five years of teaching experience and those who had taught more than five years.

Two hundred and thirty-three enrollees had had under five years of teaching experience, while 193 possessed more than five years of experience.

QUESTION: What did the course coordinators report about the teachers enrolled in their areas?

ANSWER: Several spot checks made with course coordinators revealed their judgment that many of the enrolled teachers were older than the average found returning to college campuses for graduate work. The University of Wisconsin experience has been that the average age of teachers returning to campus for additional work is around thirty-six years. The coordinators reported that a good share of teachers enrolled in the course were older than this.

Many of the enrollees had been prevented by family or financial considerations from returning to college for additional work, the coordinators reported. The Audio-Visual Television Course enabled these teachers to take the work which they previously had been unable to undertake.

Conclusions

The Audio-Visual Television Course reached many teachers of long teaching experience. Many of these long-service teachers were unable to take academic work except through the television medium. Not only does this demonstrate that the Audio-Visual Television Course reached the audience for which it was designed, but it shows that a definite need for such a course is present.

NOTE: Those wishing to obtain copies of the evaluation scales, the Study Guide, or other course information may write the Office of the Dean of the School of Education, Attention, W. A. Wittich, Professor of Audio-Visual Education, at The University of Wisconsin, Madison.

The Bibliography contains references to graduate papers in which additional information is presented as to the statistical analysis of the data gathered for this project.

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6. Wittich, W. A. and Schuller, C. F. Audio-Visual Materials. Second Edition, Harpers, New York, 1956. Textbook used in the Audio-Visual Television Course.

PARTICIPATING INSTITUTIONS AND RELATED PERSONNEL

Institution and Evaluation	Administrator's Address	TV Station
Michigan State Univ. East Lansing, Michigan W. E. Williams W. A. Wittich	Dr. Lawrence McKune Continuing Educ. Serv. Quonset 52 Michigan State University East Lansing, Michigan	WMSB-TV East Lansing 6-6:30 pm Mon-Wed-Thur.
Northern Illinois Univ. Rockford College S. Shimabukuro M. Darsey	Virgil Alexander Dir. Extension Teaching Northern Illinois Univ. DeKalb, Illinois	WREX-TV Rockford, Ill. 7:00 am Mon-Wed-Fri.
Univ. of Nebraska Lincoln, Nebraska W. C. Meierhenry	W. C. Meierhenry 101 Teachers College University of Neb. Lincoln, Nebraska	KUON-TV Lincoln, Neb.
Univ. of Wisconsin Madison-Milwaukee, Wis. W. E. Williams W. A. Wittich	LeRoy Peterson Mariner Tower Milwaukee, Wis. and/or C. A. Wedemeyer 110 Extension Univ. of Wisconsin	WXIX-TV Milwaukee, Wis. 4:00 pm Wed. 3:30 pm Sat. 3:30 pm Sun.
Washington Univ. St. Louis State Teachers College, *Kirksville,* Harris Teachers College Wm. Henry, Forrest Crooks	William Henry County AV Ed. Dept. 7700 Bonhomme Road Clayton 5, Mo.	KETC-TV St. Louis, Mo.
Wis. State College La Crosse, Wis V. B. Rasmusen	V. B. Rasmusen AV Center Wis. State College La Crosse, Wisconsin	WKBT-TV La Crosse, Wis. 7:45-8:15 am Mon-Wed-Thur.
Florida University George Crutcher	C. Gate-Univ. of Florida Gainesville, Florida E. Word - Univ. of Florida Hillsborough County	Jacksonville ETV Tampa ETV 3:15-3:45 pm Wed-Thur-Fri.

EVALUATION SCALES

A -POST: TEACHING PRACTICES SCALE

Choose a unit of work which you actually taught during April and May of the last school year during a ten-day period. It is particularly important that you choose a unit which you are reasonably sure you will be teaching again this coming semester.

1. Pléase indicate below which unit you have chosen, the grade level you taught it at, and the subject area it is selected from.

UNIT	GRADE	SUBJECT AREA

2. Will you please indicate below on what you are basing your report. Check those that apply.

MY REPORT IS BASED ON (a) Memory ____

(b) Lesson notes ____

(c) Resource unit records ____

3. The specific learning outcomes you wished to achieve were:

(a) _____

(b) _____

(c) _____

4. Below is the report sheet.
In the left hand column are listed a variety of teaching aids.

In the first column check with a cross which of these aids you used in teaching your chosen unit.

In the second column make percentage judgments in answer to this question.

What percentage did each of the aids contribute to the level of success you actually achieved? (This column should add up to no more than 100%.)

In the third column give a brief, yet precise description of the way you used each of your aids to achieve your goals.

NOTE: Your best reaction will be obtained if you will follow these steps:

1. Read through the whole report sheet once.

2. Next, fill out column 1, checking which aids you used.

3. Next, concentrate on filling out column 2, indicating the percentage of success you attribute to each aid. Note: Fill out for not more than the eight most important aids you used.

4. Finally, fill out column 3, giving a brief description of how you used each of the aids.

	Check if Used at All	Check % success Due to Use of Aid	Give a brief, precise description of way you used each aid.
(a) CHALKBOARD			
(b) FLAT PICTURES			
(c) GRAPHICS			
(d) DUPLICATING			
(e) FELT BOARD			
(f) STUDY DISPLAYS			
(g) SOUND FILMS			

	Check	% Success	Brief Description
(h) MAPS			
(i) COMMUNITY STUDY			
(j) MODELS AND SPECIMENS			
(k) STILL PROJECTION			
(l) RECORDED DISK OR TAPE			
(m) CLASSROOM TELEVISION			
(n) CLASSROOM RADIO			
(o) LIBRARY			
(p) STENCILS AND OUTLINES			
(q) TEXT BOOKS			
(r) FILM STRIPS			
(s) TESTS AND WRITTEN ASSIGNMENTS			
(t) ORAL EXPRESSION			
(u) ADDITIONAL READING			

B -POST: TEACHING METHODS OPINIONNAIRE

If you feel that the concept at the top of the page is very closely related to one end of the scale, you should place your check mark to the left or right as follows:

EITHER FAIR X : ___ : ___ : ___ : ___ : ___ : ___ UNFAIR

OR FAIR ___ : ___ : ___ : ___ : ___ : ___ : X UNFAIR

If you feel that the concept at the top of the page is quite closely related to one or the other end of the scale (but not extremely so), you should place your check mark as follows:

EITHER STRONG ___ : X : ___ : ___ : ___ : ___ : ___ WEAK

OR STRONG ___ : ___ : ___ : ___ : ___ : X : ___ WEAK

If you feel that the concept at the top of the page is only slightly related to one end as opposed to the other (but is not really neutral), then you should place your check mark as follows:

EITHER ACTIVE ___ : ___ : X : ___ : ___ : ___ : ___ PASSIVE

OR ACTIVE ___ : ___ : ___ : ___ : X : ___ : ___ PASSIVE

The direction towards which you check on the scale depends, of course, upon which of the two ends of the scale seem most characteristic of the thing you're judging.

If you feel that the concept at the top of the page is neutral on the scale, both ends of the scale being equally associated with the concept, or if the scale is completely irrelevant, unrelated to the concept, then you should place your check mark in the middle space as follows:

SAFE ___ : ___ : ___ : X : ___ : ___ : ___ DANGEROUS

Important

1. Place your check marks in the middle of the spaces, not on the boundaries.

This			Not This X			
___ :	___ :	___ :	X	: ___ :	___ :	___

2. Be sure to check every scale for every concept. Do not omit any.

3. Never put more than one check mark between any two adjective opposites.

Sometimes you will feel as though you've had the same item before on the test. This will not be the case, so do not back forth through the items. Do not try to remember how you checked similar items earlier in the test. Make each item a separate and independent judgment. Work at fairly high speed. Do not worry or puzzle over individual items. It is your first impression, the immediate "feeling" about the items, that we want. On the other hand, please do not be careless, because we want your true impressions. Note that your answers on these scales will in no way affect your grade or credit.

(PRACTICE SCALE)

Rigged Television Quiz Shows

good ___:___:___:___:___:___:___ bad

weak ___:___:___:___:___:___:___ strong

slow ___:___:___:___:___:___:___ fast

colorful ___:___:___:___:___:___:___ colorless

incomplete ___:___:___:___:___:___:___ complete

new ___:___:___:___:___:___:___ old

simple ___:___:___:___:___:___:___ complex

constrained ___:___:___:___:___:___:___ free

active ___:___:___:___:___:___:___ passive

worthless ___:___:___:___:___:___:___ valuable

usual ___:___:___:___:___:___:___ unusual

perfect ___:___:___:___:___:___:___ imperfect

light ___:___:___:___:___:___:___ heavy

cautious ___:___:___:___:___:___:___ rash

impelling ___:___:___:___:___:___:___ resisting

If you had trouble, refer back to the directions. If you felt that the practice went well, proceed with the scales which follow.

Education Sound Motion Picture Instruction

good ____:____:____:____:____:____:____ bad

weak ____:____:____:____:____:____:____ strong

slow ____:____:____:____:____:____:____ fast

colorful ____:____:____:____:____:____:____ colorless

incomplete ____:____:____:____:____:____:____ complete

new ____:____:____:____:____:____:____ old

simple ____:____:____:____:____:____:____ complex

constrained ____:____:____:____:____:____:____ free

active ____:____:____:____:____:____:____ passive

worthless ____:____:____:____:____:____:____ valuable

usual ____:____:____:____:____:____:____ unusual

perfect ____:____:____:____:____:____:____ imperfect

light ____:____:____:____:____:____:____ heavy

cautious ____:____:____:____:____:____:____ rash

impelling ____:____:____:____:____:____:____ resisting

Audio-Visual Education

good ____:____:____:____:____:____:____ bad

weak ____:____:____:____:____:____:____ strong

slow ____:____:____:____:____:____:____ fast

colorful ____:____:____:____:____:____:____ colorless

incomplete ____:____:____:____:____:____:____ complete

new ____:____:____:____:____:____:____ old

simple ____:____:____:____:____:____:____ complex

constrained ____:____:____:____:____:____:____ free

active ____:____:____:____:____:____:____ passive

worthless ____:____:____:____:____:____:____ valuable

usual ____:____:____:____:____:____:____ unusual

perfect ____:____:____:____:____:____:____ imperfect

light ____:____:____:____:____:____:____ heavy

cautious ____:____:____:____:____:____:____ rash

impelling ____:____:____:____:____:____:____ resisting

Television Instruction

good ___:___:___:___:___:___:___ bad

weak ___:___:___:___:___:___:___ strong

slow ___:___:___:___:___:___:___ fast

colorful ___:___:___:___:___:___:___ colorless

incomplete ___:___:___:___:___:___:___ complete

new ___:___:___:___:___:___:___ old

simple ___:___:___:___:___:___:___ complex

constrained ___:___:___:___:___:___:___ free

active ___:___:___:___:___:___:___ passive

worthless ___:___:___:___:___:___:___ valuable

usual ___:___:___:___:___:___:___ unusual

perfect ___:___:___:___:___:___:___ imperfect

light ___:___:___:___:___:___:___ heavy

cautious ___:___:___:___:___:___:___ rash

impelling ___:___:___:___:___:___:___ resisting

good ____:____:____:____:____:____:____ bad

weak ____:____:____:____:____:____:____ strong

slow ____:____:____:____:____:____:____ fast

colorful ____:____:____:____:____:____:____ colorless

incomplete ____:____:____:____:____:____:____ complete

new ____:____:____:____:____:____:____ old

simple ____:____:____:____:____:____:____ complex

constrained ____:____:____:____:____:____:____ free

active ____:____:____:____:____:____:____ passive

worthless ____:____:____:____:____:____:____ valuable

usual ____:____:____:____:____:____:____ unusual

perfect ____:____:____:____:____:____:____ imperfect

light ____:____:____:____:____:____:____ heavy

cautious ____:____:____:____:____:____:____ rash

impelling ____:____:____:____:____:____:____ resisting

Radio Instruction

good ____:____:____:____:____:____:____ bad

weak ____:____:____:____:____:____:____ strong

slow ____:____:____:____:____:____:____ fast

colorful ____:____:____:____:____:____:____ colorless

incomplete ____:____:____:____:____:____:____ complete

new ____:____:____:____:____:____:____ old

simple ____:____:____:____:____:____:____ complex

constrained ____:____:____:____:____:____:____ free

active ____:____:____:____:____:____:____ passive

worthless ____:____:____:____:____:____:____ valuable

usual ____:____:____:____:____:____:____ unusual

perfect ____:____:____:____:____:____:____ imperfect

light ____:____:____:____:____:____:____ heavy

cautious ____:____:____:____:____:____:____ rash

impelling ____:____:____:____:____:____:____ resisting

good ___:___:___:___:___:___:___ bad

weak ___:___:___:___:___:___:___ strong

slow ___:___:___:___:___:___:___ fast

colorful ___:___:___:___:___:___:___ colorless

incomplete ___:___:___:___:___:___:___ complete

new ___:___:___:___:___:___:___ old

simple ___:___:___:___:___:___:___ complex

constrained ___:___:___:___:___:___:___ free

active ___:___:___:___:___:___:___ passive

worthless ___:___:___:___:___:___:___ valuable

usual ___:___:___:___:___:___:___ unusual

perfect ___:___:___:___:___:___:___ imperfect

light ___:___:___:___:___:___:___ heavy

cautious ___:___:___:___:___:___:___ rash

impelling ___:___:___:___:___:___:___ resisting

Classroom Tape Recorder

good ____:____:____:____:____:____:____ bad

weak ____:____:____:____:____:____:____ strong

slow ____:____:____:____:____:____:____ fast

colorful ____:____:____:____:____:____:____ colorless

incomplete ____:____:____:____:____:____:____ complete

new ____:____:____:____:____:____:____ old

simple ____:____:____:____:____:____:____ complex

constrained ____:____:____:____:____:____:____ free

active ____:____:____:____:____:____:____ passive

worthless ____:____:____:____:____:____:____ valuable

usual ____:____:____:____:____:____:____ unusual

perfect ____:____:____:____:____:____:____ imperfect

light ____:____:____:____:____:____:____ heavy

cautious ____:____:____:____:____:____:____ rash

impelling ____:____:____:____:____:____:____ resisting

Models and Specimens

good ____:____:____:____:____:____:____ bad

weak ____:____:____:____:____:____:____ strong

slow ____:____:____:____:____:____:____ fast

colorful ____:____:____:____:____:____:____ colorless

incomplete ____:____:____:____:____:____:____ complete

new ____:____:____:____:____:____:____ old

simple ____:____:____:____:____:____:____ complex

constrained ____:____:____:____:____:____:____ free

active ____:____:____:____:____:____:____ passive

worthless ____:____:____:____:____:____:____ valuable

usual ____:____:____:____:____:____:____ unusual

perfect ____:____:____:____:____:____:____ imperfect

light ____:____:____:____:____:____:____ heavy

cautious ____:____:____:____:____:____:____ rash

impelling ____:____:____:____:____:____:____ resisting

Textbook

good ___:___:___:___:___:___:___ bad

weak ___:___:___:___:___:___:___ strong

slow ___:___:___:___:___:___:___ fast

colorful ___:___:___:___:___:___:___ colorless

incomplete ___:___:___:___:___:___:___ complete

new ___:___:___:___:___:___:___ old

simple ___:___:___:___:___:___:___ complex

constrained ___:___:___:___:___:___:___ free

active ___:___:___:___:___:___:___ passive

worthless ___:___:___:___:___:___:___ valuable

usual ___:___:___:___:___:___:___ unusual

perfect ___:___:___:___:___:___:___ imperfect

light ___:___:___:___:___:___:___ heavy

cautious ___:___:___:___:___:___:___ rash

impelling ___:___:___:___:___:___:___ resisting

Classroom Chalkboard

good ____:____:____:____:____:____:____ bad

weak ____:____:____:____:____:____:____ strong

slow ____:____:____:____:____:____:____ fast

colorful ____:____:____:____:____:____:____ colorless

incomplete ____:____:____:____:____:____:____ complete

new ____:____:____:____:____:____:____ old

simple ____:____:____:____:____:____:____ complex

constrained ____:____:____:____:____:____:____ free

active ____:____:____:____:____:____:____ passive

worthless ____:____:____:____:____:____:____ valuable

usual ____:____:____:____:____:____:____ unusual

perfect ____:____:____:____:____:____:____ imperfect

light ____:____:____:____:____:____:____ heavy

cautious ____:____:____:____:____:____:____ rash

impelling ____:____:____:____:____:____:____ resisting

Regular Classroom Instruction

good ___:___:___:___:___:___:___ bad

weak ___:___:___:___:___:___:___ strong

slow ___:___:___:___:___:___:___ fast

colorful ___:___:___:___:___:___:___ colorless

incomplete ___:___:___:___:___:___:___ complete

new ___:___:___:___:___:___:___ old

simple ___:___:___:___:___:___:___ complex

constrained ___:___:___:___:___:___:___ free

active ___:___:___:___:___:___:___ passive

worthless ___:___:___:___:___:___:___ valuable

usual ___:___:___:___:___:___:___ unusual

perfect ___:___:___:___:___:___:___ imperfect

light ___:___:___:___:___:___:___ heavy

cautious ___:___:___:___:___:___:___ rash

impelling ___:___:___:___:___:___:___ resisting

C-POST: AUDIO-VISUAL PRACTICES SCALE

Please check that point along the scale that agrees with your best knowledge of the situation and remember, your accurate appraisal of each statement will furnish us the kind of data necessary to further improve the effectiveness of the course.

	Almost always	More than one half the time	Half of the time	Less than one half the time	Almost never
1. The motion picture projector is threaded, focused, and ready to go when the moment arrives for showing the film.					
2. As the result of pupil-teacher planning, the pupils have definite purposes for seeing the film.					
3. Difficult concepts are clarified prior to the film showing.					
4. New and unfamiliar terms are clarified before the showing starts.					
5. Project and verbal follow-up activities are pursued due to the film showing.					
6. Protractors, staff liners, templates, and other mechanical aids are used to improve chalkboard drawings.					
7. Study displays are arranged as an integral part of classroom study.					
8. Every study display has a title.					
9. Color in study display is used to emphasize and add meaning.					
10. Pupils are encouraged to plan and participate in putting together study displays.					

C -POST

	Almost always	More than one half the time	Half of the time	Less than one half the time.	Almost never
11. Pupils are encouraged to bring materials such as pictures, objects, models that can be of use in the classroom.					
12. Pupils are encouraged to examine and manipulate models and other materials which are used for teaching purposes.					
13. Flat pictures are used as study materials in the classroom.					
14. Pictures are geared to the age and interests of the learners.					
15. Pictures used with the whole group are large enough so that everyone can easily see them.					
16. An opaque projector is used to show small pictures and objects to the whole class.					
17. Charts, graphs, and diagrams are used during a lesson and are large enough and simple enough to be easily seen and understood by members of the class.					
18. Up-to-date maps and globes are used as an integral part of classroom instruction.					
19. Maps and globes are available which are suited to the learning needs, age, and understanding of pupils.					
20. Maps and globes are placed in such locations in the classroom as to encourage pupil study and examination.					

2

C-POST

Included here is a list of audio-visual materials and equipment. To what degree would you say you have used them during the past semester? Please place an X at that point in the scale that agrees with your best judgment.

	V. Frequently	Frequently	Occasionally	Seldom	Never
Chalkboard					
Feltboard					
Study Displays					
Flat pictures					
Charts, Graphs, & Diagrams					
Sound motion films					
Maps and Globes					
Community Study					
Models and Specimens					
Slides, projector					
Filmstrips, projector					
Opaque, projector					
Overhead projector					
Tape Recorder					
Educational radio					
Educational television					

To the Supervisor:

We would like you— the supervisor— as a qualified observer, to give us your general impressions about:

1. Atmosphere of the room - how it reflect the use of audio visual media.

2. Student participation in audio visual experiences.

3. Any other information you consider pertinent.

D AV PRACTICES - CHANGE SCALE

Please respond to the following statements:

1. Changes have occurred during recent weeks in the way I apply audio-visual materials in my day-to-day classroom instruction.

   AGREE_____ DISAGREE_____

2. Changes have occurred during recent weeks in the way I apply the principles and methods of audio-visual education to my day-to-day classroom instruction.

   AGREE_____ DISAGREE _____

3. I can identify specific instances where these changes have taken place.

   AGREE_____ DISAGREE _____

4. (a) Changes have occurred in my use of the CHALKBOARD.

   AGREE_____ DISAGREE _____

   (b) If you agreed in 4a, give two or three examples of your present use of the chalkboard to illustrate the nature of the changes, that is, the way you use the aid and the content of your use of it.

   _____

   _____

   _____

5. (a) Changes have occurred in my use of FLAT PICTURES.

   AGREE_____ DISAGREE _____

   (b) If you agreed in 5a, give two or three examples of your present use of the flat pictures to illustrate the nature of the changes.

   _____

   _____

   _____

6. (a) Changes have occurred in my use of the GRAPHICS.

AGREE _____ DISAGREE _____

(b) If you agreed in 6a, give two or three examples of your present use of the graphics to illustrate the nature of the changes.

_____

_____

_____

7. (a) Changes have occurred in my use of DUPLICATING.

AGREE _____ DISAGREE _____

(b) If you agreed in 7a, give two or three examples of your present use of duplicating to illustrate the nature of the changes.

_____

_____

_____

8. (a) Changes have occurred in my use of the FELTBOARD.

AGREE _____ DISAGREE _____

(b) If you agreed in 8a, give two or three examples of your present use of the feltboard to illustrate the nature of the changes.

_____

_____

_____

9. (a) Changes have occurred in my use of the STUDY DISPLAYS.

AGREE _____ DISAGREE _____

(b) If you agreed in 8a, give two or three examples of your present use of

study displays to illustrate the nature of the changes.

_____

_____

_____

10. (a) Changes have occurred in my use of SOUND FILMS.

AGREE _____ DISAGREE _____

(b) If you agreed in 10a, give two or three examples of your present use of sound films to illustrate the nature of the changes.

_____

_____

_____

11. (a) Changes have occurred in my use of MAPS.

AGREE _____ DISAGREE _____

(b) If you agreed in 11a, give two or three examples of your present use of maps to illustrate the nature of the changes.

_____

_____

_____

12. (a) Changes have occurred in my use of COMMUNITY STUDY.

AGREE _____ DISAGREE _____

(b) If you agreed in 12a, give two or three examples of your present use of community study to illustrate the nature of the changes.

_____

_____

_____

13. (a) Changes have occurred in my use of MODELS AND SPECIMENS.

AGREE _____ DISAGREE _____

(b) If you agreed in 13a, give two or three examples of your present use of models and specimens to illustrate the nature of the changes.

_____

_____

_____

14. (a) Changes have occurred in my use of STILL PROJECTION.

AGREE _____ DISAGREE _____

(b) If you agreed in 14a, give two or three examples of your present use of still projection to illustrate the nature of the changes.

_____

_____

_____

15. (a) Changes have occurred in my use of RECORDED DISKS OR TAPES.

AGREE _____ DISAGREE _____

(b) If you agreed in 15a, give two or three examples of your present use of recorded disks or tapes to illustrate the nature of the changes.

_____

_____

_____

16. (a) Changes have occurred in my use of CLASSROOM TELEVISION.

AGREE _____ DISAGREE _____

(b) If you agreed in 16a, give two or three examples of your present use

of classroom television to illustrate the nature of the changes.

_____

_____

_____

17. (a) Changes have occurred in my use of CLASSROOM RADIO.

AGREE _____ DISAGREE _____

(b) If you agreed in 17a, give two or three examples of your present use of classroom radio to illustrate the nature of the changes.

_____

_____

_____

_____

18. (a) Changes have occurred in my use of STENCILS AND OUTLINES.

AGREE _____ DISAGREE _____

(b) If you agreed in 18a, give two or three examples of your present use of stencils and outlines to illustrate the nature of the changes.

_____

_____

_____

19. (a) Changes have occurred in my use of TEXTBOOKS.

AGREE _____ DISAGREE _____

(b) If you agreed in 19a, give two or three examples of your present use of textbooks to illustrate the nature of the changes.

_____

_____

_____

20. (a) Changes have occurred in my use of FILMSTRIPS .

AGREE _____ DISAGREE _____

(b) If you agreed in 20a, give two or three examples of your present use of filmstrips to illustrate the nature of the changes.

_____

_____

_____

E AV/TV EVALUATION FORM

NAME _____
FIRST LAST

TEACHING ADDRESS _____

COURSE CREDIT: Undergraduate ___;Graduate ___;Salary Increment ___;In-Service ___;

MY FINAL EVALUATION OF ELEMENTS IN THIS AV/TV COURSE:

1. (a) How much practical value have these TELEVISION LESSONS for you in your approach to day-to-day teaching?

   Very High ___: High ___: Mediocre ___: Low ___: Very Low ___:

   (b) Please explain

   _____

   _____

   _____

   _____

2. (a) Would you recommend that these TELEVISION LESSONS be used again in the teaching of this AV/TV course?

   Yes ____: Yes, with reservations ____: No ____:

   (b) Please explain

   _____

   _____

   _____

3. (a) Indicate by a check mark your general evaluation of these TELEVISION LESSONS as aids to learning.

   Very Good ___: Good ___: Mediocre ___: Poor ___: Very Poor ___:

   (b) Explain why:

Favorable factors	Unfavorable factors
_____	_____
_____	_____
_____	_____

4. (a) Indicate by a check mark your general evaluation of the usefulness of the STUDY GUIDES in the course.

Very Good___: Good___: Mediocre___: Poor___: Very Poor___:

(b) Please explain

_____

_____

_____

5. (a) Indicate by a check mark your general evaluation of the written STUDY ASSIGNMENTS you have been asked to submit.

Very Significant___: Significant___: Neutral___: Insignificant___:
Very Insignificant___:

(b) Please explain

_____

_____

_____

_____

6. (a) The TOTAL WORK LOAD represented by: watching the television lessons, studying the course study guide, writing the assignments, and doing reference reading is:

Too Much___: Reasonable___: Too Little___:

(b) Please explain

_____

_____

_____

7. How does the MAGNITUDE OF THE TASKS involved in the completion of this course compare with that of the average professional education course you have experienced?

Much Greater___: Greater___: Equal___: Smaller___: Much Smaller___:

8. How PRACTICAL is the nature of the TASKS involved in the completion of this course compared with that of the average professional education course you have experienced?

   Much More___: More___: Equal___: Less___: Much Less___:

9. Please judge the USEFULNESS TO YOU of the TEN LESSON AREAS of the course listed below.

	Very Useful	Useful	So-So	Useless	Very Useless
A. Av and learning					
B. Chalkboard, flat pictures, graphics, feltboard, study display, and duplication					
C. Sound films					
D. Maps and globes					
E. Community study					
F. Models and specimens					
G. Still projection					
H. Audio					
I. Radio and Television					
J. Administration and evaluation					

10. By refering to the TEN LESSON ASSIGNMENTS listed above as 9A-9J, pick out those which you think ought to be revised. Indicate the changes you would make and tell us why you advocate these changes.

Lesson	Changes Recommended	Reason

11. Indicate by a check mark the degree to which your opinion coincides with the following statements:

THE 42AV/TV LESSONS...	Strongly Agree	Agree	Tend To Agree	Neutral	Tend To Disagree	Disagree	Strong Disag
a. motivated learning.							
b. presented new material.							
c. reinforced learning.							
d. acted as a pacing device in correspondence study.							
e. had novelty value.							
f. were redundant							
g. established a personal relationship between TV teacher and student.							
h. used visualized material extensively.							

THE 10 CORRESPONDENCE STUDY ASSIGNMENTS...							
a. were closely related to practical teaching needs.							
b. bridged the gap between student and unseen teacher.							
c. required time and work in excess of worth gained.							

THE COURSE STUDY GUIDES AND REQUIRED READINGS							
a. were an adequate basic reference source.							
b. were useful in interpreting the course.							
c. aroused interest.							
d. motivated student to learn.							

12. Please indicate HOW MANY LESSONS you FAILED to see. _____
1 2 3 4 5 6 7 8 9 10 11
or more

13. Please indicate what fraction of the ADDITIONAL READING you were able to do _____.

14. Please indicate below what caused you to miss certain lessons, was it:
Personal Reasons ___: Programme Production Failure ___:

15. (a) Please indicate whether the ADMINISTRATION of the course in your area was satisfactory.
Yes ___: No ___;
(b) Please explain

_____

_____

_____

16. (a) From your acquaintance with professional education courses, how does this AV/TV education course as a whole rank, as compared with the average?

Much More Favorably ___: More Favorably ___: Equal ___: Less Favorably ___:
Much Less Favorably ___:

(b) Please explain

_____

_____

_____